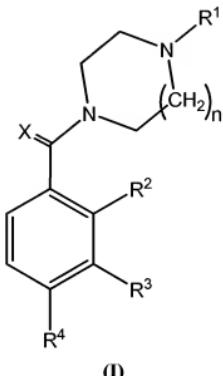


### **In the Claims:**

This listing of claims will replace all prior versions and listing of claims in this application.

1. (currently amended) A compound of formula (I):



wherein

$R^1$  is  $\epsilon_{1-10}$  branched  $C_{3-5}$  alkyl,  $C_{3-8}$  alkenyl,  $C_{3-8}$  cycloalkyl,  $(C_{3-8}$  cycloalkyl)C<sub>1-6</sub> alkyl,  $(C_{3-8}$  cycloalkyl)C<sub>3-8</sub> alkenyl, or  $(C_{1-8}$  alkylcarbonyl)C<sub>1-8</sub> alkyl;

$n$  is 1:

X is 0;

R<sup>2</sup> and R<sup>3</sup> independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C<sub>1-3</sub>alkoxy;

$\mathbb{R}^4$  is  $G$

$G$  is LO:

Li is  $-\text{CH}_2-$ :

Q is a saturated, un-substituted N-linked heterocyclyl, selected from the group consisting of azepanyl, morpholinyl, piperidinyl and pyrrolidinyl; provided however that when R<sup>1</sup> is methyl, G is not piperidin-1-ylmethyl; and wherein each of the above alkyl, alkenyl, and cycloalkyl, groups may each be independently and optionally substituted with between 1 and 3

substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxy, and C<sub>1-3</sub> alkyl;  
provided that when R<sup>1</sup> is methyl, R<sup>2</sup> and R<sup>3</sup> are both H and X is O, then R<sup>4</sup> is not  
4-morpholin-4-ylmethyl;  
or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

2-3: Cancelled.

4. (original) A compound of claim 1, wherein wherein R<sup>1</sup> is isopropyl.

5-40: Cancelled

41. (original) A compound of claim 1 selected from the group consisting of:  
(4-Azepan-1-ylmethyl-phenyl)-(4-sec-butyl-piperazin-1-yl)-methanone;  
(4-Isopropyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
(4-sec-Butyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-piperidin-1-ylmethyl-phenyl)-methanone;  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-pyrrolidin-1-ylmethyl-phenyl)-  
methanone;  
(4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone;  
(4-sec-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone  
dihydrochloride; and  
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone  
dihydrochloride.

42. (original) A pharmaceutical composition, comprising a compound of claim 1 and  
a pharmaceutically-acceptable excipient.

43. (original) A compound of claim 1 isotopically-labelled to be detectable by PET  
or SPECT.

Claims 44-46: Cancelled

47. (withdrawn) A method for treating a disease or condition modulated by at least one receptor selected from the histamine H<sub>1</sub> receptor and the histamine H<sub>3</sub> receptor, said method comprising (a) administering to a subject a jointly effective amount of a histamine H<sub>1</sub> receptor antagonist compound, and (b) administering to the subject a jointly effective amount of a compound of claim 1, said method providing a jointly therapeutically effective amount of said compounds.
48. (withdrawn) The method of claim 47 wherein the histamine H<sub>1</sub> receptor antagonist and the compound of claim 1 are present in the same dosage form.
49. (withdrawn) A method for treating diseases or conditions modulated by at least one receptor selected from the histamine H<sub>2</sub> receptor and the histamine H<sub>3</sub> receptor in a subject, comprising (a) administering to the subject a jointly effective amount of a histamine H<sub>2</sub> receptor antagonist compound, and (b) administering to the subject a jointly effective amount of a compound of claim 1, said method providing a jointly therapeutically effective amount of said compounds.
50. (withdrawn) The method of claim 39 wherein the histamine H<sub>2</sub> receptor antagonist and the compound of claim 1 are present in the same dosage form.
51. (original) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.
52. (original) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 1.

53. (original) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.

54-58: Cancelled

59. (previously presented) A compound of claim 1, wherein R<sup>1</sup> is C<sub>3-8</sub> cycloalkyl.

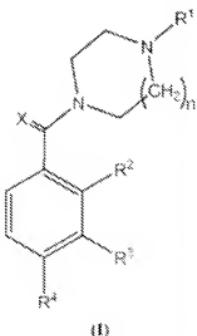
60. Cancelled.

61. (previously presented) A compound that is: (4-sec-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.

62. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.

63. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-(decahydro-isoquinolin-2-ylmethyl)-phenyl)-methanone.

64. (new) A compound of formula (I):



wherein

R<sup>1</sup> is C<sub>3-8</sub> cycloalkyl;

n is 1;

X is O;

R<sup>2</sup> and R<sup>3</sup> independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C<sub>1-3</sub>alkoxy;

R<sup>4</sup> is G

G is LQ;

L is -CH<sub>2</sub>-;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above cycloalkyl groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and C<sub>1-3</sub> alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

65. (new) A compound of claim 64, wherein Q is morpholinyl.

66. (new) A pharmaceutical composition, comprising a compound of claim 64 and a pharmaceutically-acceptable excipient.

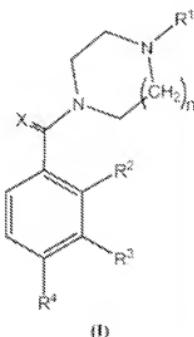
67. (new) A compound of claim 64 isotopically-labelled to be detectable by PET or SPECT.

68. (new) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

69. (new) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

70. (new) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

71. (new) A compound of formula (I):



wherein

R<sup>1</sup> is branched C<sub>3-5</sub> alkyl;

n is 1;

X is O;

R<sup>2</sup> and R<sup>3</sup> independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C<sub>1-3</sub>alkoxy;

R<sup>4</sup> is G

G is LQ;

L is -CH<sub>2</sub>-;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above alkyl groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and C<sub>1-3</sub> alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

72. (new) A compound of claim 71, wherein R<sup>1</sup> is isopropyl.

73. (new) A compound of claim 71, wherein Q is morpholinyl.

74. (new) A compound of claim 71, wherein R<sup>1</sup> is isopropyl, R<sup>2</sup> is hydrogen, R<sup>3</sup> is hydrogen and Q is morpholinyl.

75. (new) A compound that is: (4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone.

76. (new) A pharmaceutical composition, comprising a compound of claim 71 and a pharmaceutically-acceptable excipient.

77. (new) A compound of claim 71 isotopically-labelled to be detectable by PET or SPECT.

78. (new) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.

79. (new) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 71.

80. (new) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.